

REMARKS

Applicants believe that this response addresses the Examiner's rejection and that any changes do not introduce new matter into the specification, limit the scope of the claims or result in any prosecution history estoppel.

Claims 1, 10, 11, 17 and 24 have been amended. No claims have been added or canceled.

Claim Discussion -- 35 USC S. 103(a)

The Examiner rejected claims 1-9 and 12-29 under 35 U.S.C. 103 as being unpatentable over Sato (U.S. Patent No. 6,560,369) in view of Martucci et al. (U.S. Patent No. 5,764,805). The rejection of these claims on this basis is traversed. In particular, both Sato and Martucci, alone or in combination, fail to teach or suggest

“scaling in a first mutually orthogonal direction comprises:

applying a first scale factor to each filter coefficient in the low pass filtering operation to subbands LL_k and HL_k ;

applying a second scale factor to each filter coefficient in the high pass filtering operation to subband LH_k ; and

applying a third scale factor to each filter coefficient in the high pass filtering operation to subband HH_k ;

HL, HH, LH, and LL in the k^{th} level, respectively”

as claimed or similarly claimed.

As noted in the specification on page 13 and shown in FIG. 5 of the present application:

During the transform process, quantized signal samples are filtered by applying scaled filter coefficients, so that at the completion of the transform process of the image, at least a selected portion of the transformed signal samples are inverse quantized. This way, the inverse

quantization is integrated into the IDWT process. This is accomplished by the signals samples first being filtered along the image in a first direction and then along the image in a second direction, so that at the completion of the transform process of the image at least a selected portion of the transformed signal samples are inverse quantized. This is repeated throughout the specification, such as on pages 13 and 17:

In this particular embodiment of a method of inverse quantizing quantized signal samples of an image during image decompression in accordance with the present invention, a process to transform the quantized signal samples from the first domain, such as the frequency domain, to a second domain, such as the spatial domain is applied. During the transformation process, quantized signal samples are filtered by applying scaled or pre-scaled filter coefficients, in this particular embodiment. The signal samples are first filter along the image in a first direction by applying scaled or pre-scaled filter coefficients, such as column-wise, and then the signal samples are filtered along the image in a second direction such as row-wise, by applying scaled or pre-scaled filter coefficients, so that at the completion of the transformation process of the image, the transformed signal samples are inverse quantized.

As previously indicated, it will be appreciated that many different embodiments are within the scope of the present invention. For example, although a method of inverse quantizing quantized signal samples of an image during image decompression in accordance with the present invention is described, alternatively, an embodiment may comprise, for example, a device, such as, for example, an integrated circuit. In such an embodiment, the integrated circuit may, for example, include input ports to receive signal samples associated with at least one image and the integrated circuit may include digital circuitry, although, of course, the invention is not limited in scope in this respect. The digital circuitry may have a configuration to apply a process to transform the signal samples from a first domain to a second domain and, during the transform process, filter signal samples, by first applying scaled filter coefficients to signal samples along the image in a first direction and then applying scaled filter coefficients to signal samples along the image in a second direction, so that, at the completion of the transform process of the image, at least selected regions of the transformed signal samples are inverse quantized. Likewise, other aspects of the previously described embodiment, for example, may be included, although, again, the invention is not limited in scope in this respect. Additionally, features not previously described may be included in an embodiment in accordance with the invention.

The above is believed sufficient to overcome the Examiner's rejection, although it is believed that there are other limitations in the claims that the cited patent also fails to meet. It is therefore respectfully requested that the Examiner withdraw his rejection as to these claims.

CONCLUSION

In view of the foregoing, it is respectfully asserted that all of the claims pending in this patent application are in condition for allowance.

The required fee for a one month extension of time is enclosed. No additional fees are required for additional claims. Should it be determined that an additional fee is due under 37 CFR §§1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #02-2666.

If the Examiner has any questions, he is invited to contact the undersigned at (323) 654-8218. Reconsideration of this patent application and early allowance of all the claims is respectfully requested.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to: **Mail Stop RCE**, Commissioner for Patents, Post Office Box 1450, Alexandria, Virginia 22313-1450 on May 10, 2005.


Margaux Rodriguez May 10, 2005